AMENDMENTS TO THE CLAIMS

1-40. (Cancelled)

41. (Original) A magnetic random access memory structure comprising:

a longitudinally extending planarized conductive line formed within an insulating layer;

an electroplated bottom sense layer over said conductive line;

a nonmagnetic tunnel barrier layer over said sense layer;

a pinned layer over said nonmagnetic layer; and

at least one electrical conductor in contact with said pinned layer.

42. (Original) The structure of claim 41 wherein said sense layer is formed of NiFe.

43. (Original) The structure of claim 41 wherein said insulating layer is selected from the group consisting of BPSG, SiO, SiO_2, Si_3N_4 and polyimide.

44. (Original) The structure of claim 41 wherein said nonmagnetic layer is aluminum oxide.

45. (Original) The structure of claim 41 wherein said sense layer is formed of plurality of layers to produce a ferromagnetic sense layer.

46. (Original) The structure of claim 41 wherein said pinned layer is formed of a plurality of layers to produce a ferromagnetic pinned layer.

47. (Original) A processor-based system, comprising:

a processor; and

an integrated circuit coupled to said processor, said integrated circuit including a plurality of magnetic random access memory cells, each of said magnetic random access memory cells including an electroplated bottom sense layer formed over a planarized conductor, a nonmagnetic layer formed over said sense layer and a pinned layer formed over said nonmagnetic layer.

48. (Original) The system of claim 47 wherein said sense layer is formed of NiFe.

49. (Original) The system of claim 47 wherein said nonmagnetic layer is aluminum oxide.

50. (Original) The system of claim 47 wherein said sense layer is formed of plurality of layers to produce a ferromagnetic sense layer.

51. (Original) The system of claim 47 wherein said pinned layer is formed of a plurality of layers to produce a ferromagnetic pinned layer.